AG910-1

Report On Business®

Economy Increases Again; PMI Rises to 50.7%, Production Index Highest Since January 1989

MAY REPORT

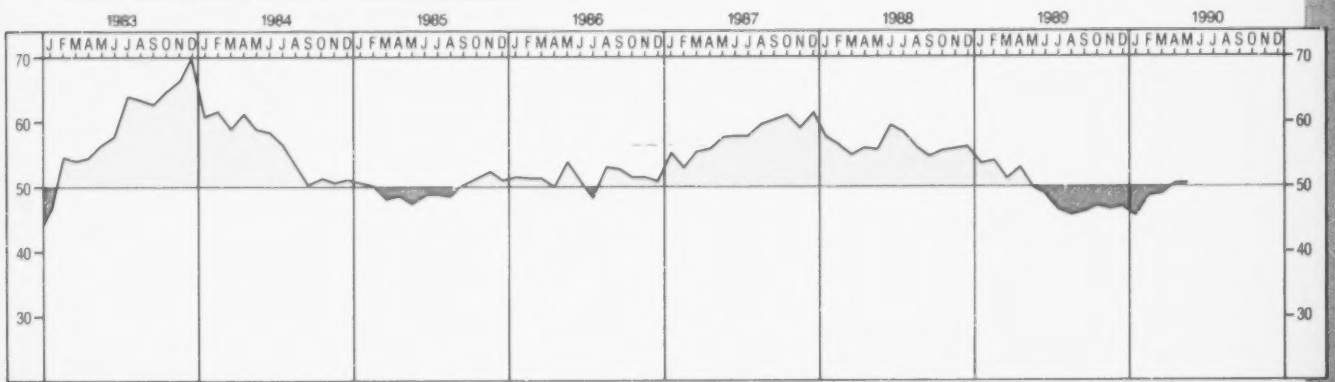
Analysis by the National Association of Purchasing Management Business Survey Committee; chair, Robert J. Bretz, C.P.M., director of materials management, Pitney Bowes, Inc.

The manufacturing economy increased for the second consecutive month in May after declining in the previous 11 months, say the nation's purchasing executives in their latest **Report on Business**. The Production Index rose for the fourth consecutive month at the highest rate since January 1989. New Orders also increased for the fourth consecutive month although at a somewhat lower rate than in April. New Export Orders continued to grow although not at the same vigorous rate as in the previous two months. The Imports Index declined in May after two months of neither growth nor decline. (Note: the Imports Index for the past four months has been corrected for previous errors.) As in April, the growth in the economy was not aided by inventory building, since inventories decreased for the 18th consecutive month.

Prices declined in May after increasing in April for the first time since May 1989. Supplier Deliveries were faster in May for the 13th consecutive month, but at the slowest rate since last May. Eight commodities were listed In Short Supply, down from 12 in April. Employment declined for the 15th consecutive month at about the same rate as the previous two months.

The **Report** was issued by Robert J. Bretz, C.P.M., chairman of the National Association of Purchasing Management's Business Survey Committee, and director of materials management at Pitney Bowes, Inc. Said Bretz, "The surge in New Orders last month was sufficient to increase Production growth significantly in May. Given the continued strong growth in New Orders in May, it is reasonable to expect the second quarter to finish with modest gains in the overall economy."

PURCHASING MANAGERS' INDEX



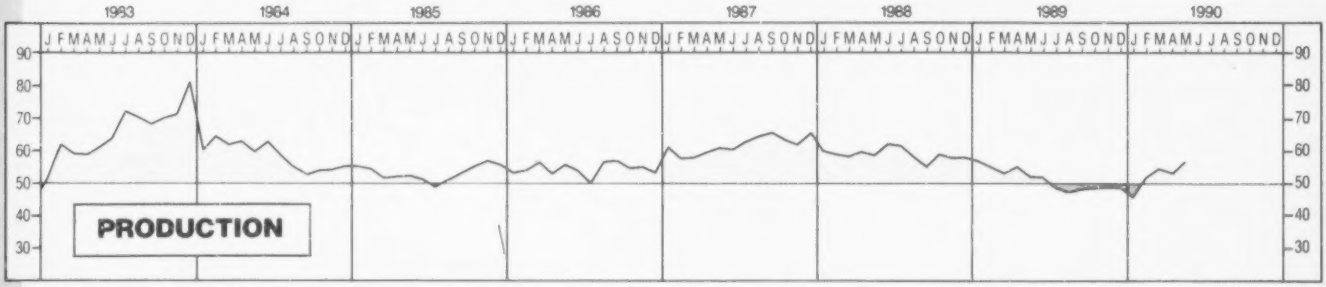
Peak — July 1981; Trough — November 1982.

PURCHASING MANAGERS' INDEX (PMI)

May '89	49.8	December '89	46.7
June '89	48.8	January '90	45.2
July '89	46.2	February '90	48.3
August '89	45.5	March '90	48.8
September '89	46.0	April '90	50.2
October '89	46.9	May '90	50.7
November '89	46.4		

The **Purchasing Managers' Index** (PMI) rose for the second consecutive month to 50.7%, up from 50.2% in April. The 50.7% is the highest since April 1989 (52.7%), after which the manufacturing economy declined for 11 consecutive months. A reading above 50 indicates that the manufacturing economy is generally expanding; below 50, that it is generally declining. Bretz added, "The economy in May confirmed previous signs of stabilizing with moderate growth. The index has averaged 48.6% for the first five months of 1990. Past experience indicates that, if this average were to continue for the remainder of 1990, it would be consistent with real GNP growth of about 1.5%."

BUSINESS



Peak — July 1981; Trough — November 1982.

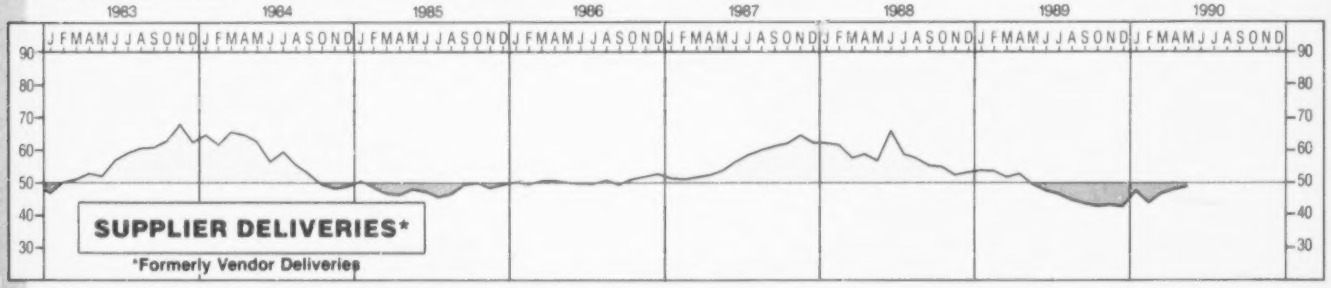
Production increased significantly in May and clearly accounted for the growth in the manufacturing economy. The Production Index rose to 56.3%, up from 53.0% in April, and the most since January 1989 (56.6%). The continued solid advances in New Orders point to a continuation of growth in Production to end the second quarter.

Production	%Better	%Same	%Worse	Net	Index
May 1990	25	62	13	+12	56.3
April 1990	30	54	16	+14	53.0
March 1990	28	55	17	+11	54.4
February 1990	27	53	20	+ 7	51.5

Peak — July 1981; Trough — November 1982.

New Orders increased in May for the fourth consecutive month, although at a slightly lower rate than last month. The New Orders Index fell to 54.8%, down from 55.5% in April. Except for April, the 54.8% is the highest since April 1989 (54.9%) and, accompanied by continued relatively strong New Export Orders, should assure Production growth over the next few months.

New Orders	%Better	%Same	%Worse	Net	Index
May 1990	31	47	22	+ 9	54.8
April 1990	36	46	18	+18	55.5
March 1990	30	48	22	+ 8	50.4
February 1990	29	48	23	+ 6	51.8



Peak — July 1981; Trough — November 1982.

Supplier Deliveries were faster in May for the 13th consecutive month, although at a slower pace than last month. The Supplier Deliveries Index registered 48.6%, up a full point from April (47.6%) and the most since May 1989 (49.5%).

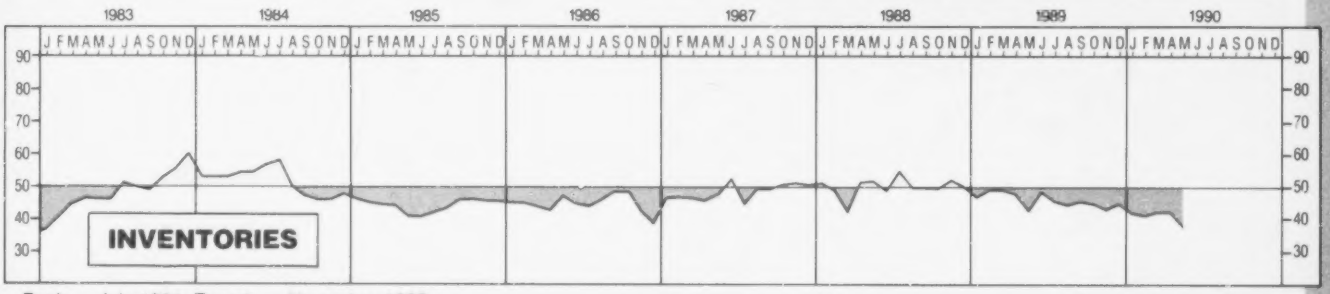
Supplier Deliveries	%Slower	%Same	%Faster	Net	Index
May 1990	8	81	11	− 3	48.6
April 1990	7	80	13	− 6	47.6
March 1990	5	84	11	− 6	45.8
February 1990	3	80	17	−14	43.3

IN SHORT SUPPLY

Bearings — 22nd consecutive month, a consequence of anti-dumping suits; **Electric Motors** — 9th time in 14 months; **Caustic Soda/Soda Ash** — 36th consecutive month (used heavily in paper-making, petroleum refining, and soap-making); **Hydrogen Peroxide** — 6th consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (used as a bleaching agent and, in solution, as a topical cleansing agent and antiseptic); **Silicon Wafers** — 2nd consecutive month (used in making semiconductors and integrated circuits); **Titanium Dioxide** — 34th consecutive month, increasing demand exceeding supply because of switching from chlorine use by paper makers to avoid dioxins (a lead-free pigment used as a whitener in coatings, paints, paper, and other industrial applications); **Timber** — 2nd consecutive month; essentially only in the Northwestern U.S., where conservationists' efforts have been successful in reducing the Douglas Fir acreage the government will allow to be cut. This is causing shortages in lumber, chips for paper mills, and a threatened reduction of log exports to the Pacific Rim; **Lemon Juice** — used in food processing and in beverages.

UP IN PRICE

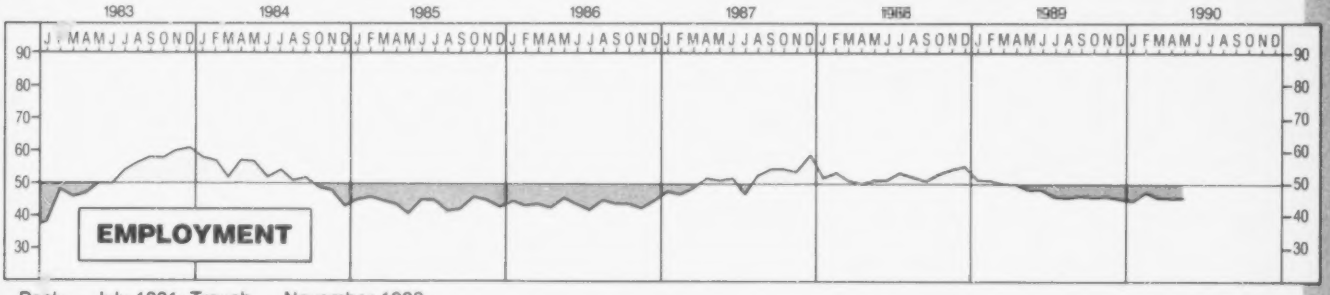
Aluminum — Stiff resistance, equal reports of price decreases; **Copper** — Volatile prices, equal reports of price decreases; **Steel Scrap** — After being reported down in price in February 1990 for 4 consecutive months; **Zinc** — 3rd consecutive month, after being reported down in price in February for the 9th time in 10 months (used heavily in metal alloys and as a protective coating for metal); **Bearings** — 20th time in 23 months, a consequence of anti-dumping suits; **Electric Motors** — 8th time in 11 months; **Caustic Soda/**



Peak — July 1981; Trough — November 1982.

Purchasers improved their record of maintaining production while reducing inventory. Inventories decreased in May, marking the 18th consecutive month of inventory declines. The Inventories Index fell significantly to 37.8%, almost four points lower than April (41.6%). The May percentage is the lowest since January 1983 (36.3%).

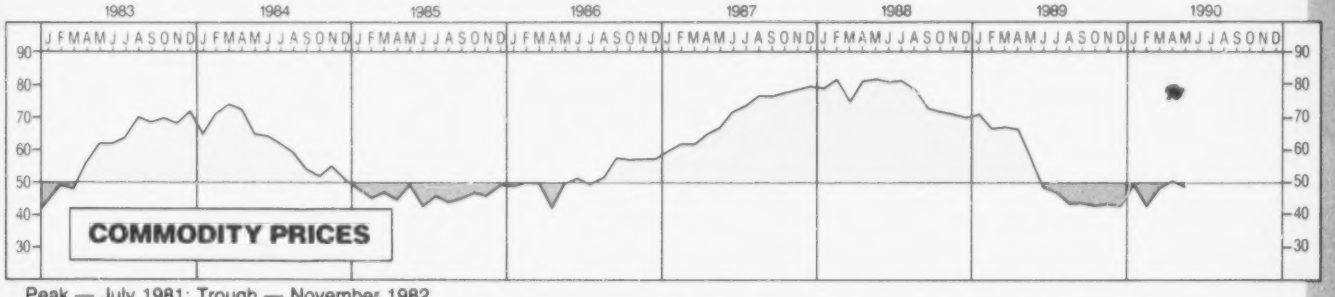
Inventories	%Higher	%Same	%Lower	Net	Index
May 1990	11	58	31	−20	37.8
April 1990	16	53	31	−15	41.6
March 1990	15	56	29	−14	41.6
February 1990	18	50	32	−14	40.8



Peak — July 1981; Trough — November 1982.

Employment declined in May for the 15th consecutive month. The Employment Index rose slightly to 45.5% from 45.1% in April. The growth in production has not convinced employers to increase employment in the manufacturing sector of the economy.

Employment	%Higher	%Same	%Lower	Net	Index
May 1990	13	67	20	− 7	45.5
April 1990	14	68	18	− 4	45.1
March 1990	12	70	18	− 6	45.2
February 1990	11	69	20	− 9	46.7



Peak — July 1981; Trough — November 1982.

Prices declined in May after increasing in April for the first time in almost a year. The Price Index fell to 48.5% from 50.8% in April. The number of commodities reported up in price dropped to 12, down from 17 last month. Conversely, the number of commodities reported lower in price increased to 17, up from 14 in April.

Prices	%Higher	%Same	%Lower	Net	Index
May 1990	11	75	14	− 3	48.5
April 1990	19	68	13	+ 6	50.8
March 1990	13	72	15	− 2	48.2
February 1990	13	59	28	−15	42.2

Soda Ash — 42nd consecutive month, primarily as a consequence of lower demand for co-produced chlorine by paper-makers (used heavily in paper-making, petroleum refining and soap making); **Methyl Ethyl Ketone (MEK)** — used heavily as a chemical solvent in surface coatings and in making resins; **Lubrication Additives; Gasoline** — 3rd time in 5 months; **Corn Starch** — 3rd time in 4 months (used heavily in both food processing and paper making); **Milk/Milk Powder** — 4th time in 8 months, a consequence of increased demand for dairy products, fewer dairy cows, exceptionally higher government exports of nonfat dry milk, and very low import quotas of nonfat dry milk (used in food processing).

DOWN IN PRICE

Aluminum — 14th consecutive month but equal reports of price increases; **Copper** — Volatile prices, equal reports of price increases; **Steel** — 9th consecutive month; **Steel Bar; Stainless Steel Plate; Stainless Steel Sheets; Forgings; Linerboard** — 3rd consecutive month, used heavily in making corrugated shipping cartons; **Corrugated Shipping Containers** — 4th consecutive month; **Printing paper; Ethylene** — used heavily in making ethylene oxide, plastic resins, and glycols; **Ethylene Glycol** — 4th consecutive month (used heavily in making antifreeze, brake fluid, plastic paint, and ink); **Phenol** — 9th time in 12 months (used heavily in making phenolic resins); **Plastic Resins** — 5th consecutive month (used in making plastic products); **Fuel Oil** — 4th consecutive month, after being reported up in price in January 1990 for 4 consecutive months; **Natural Gas** — 4th consecutive month after being reported up in price in January 1990 for 4 consecutive months; **Cheese.**

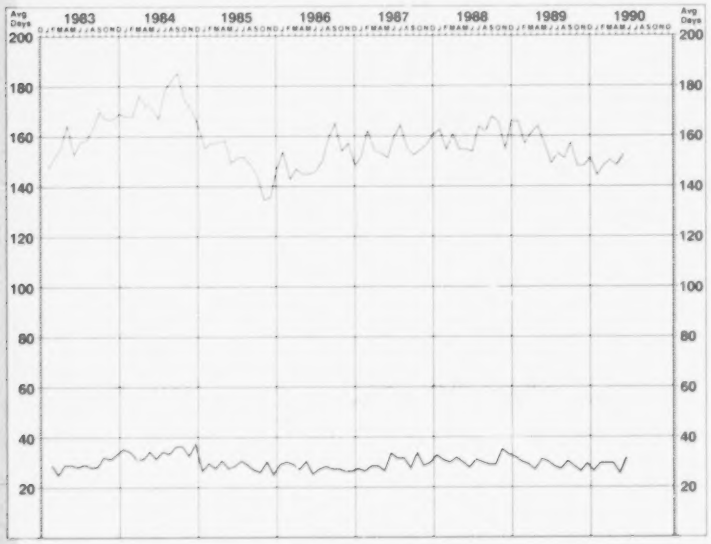
BUYING POLICY

Lead times lengthened for all three categories of purchases.

Lead times for Capital Expenditures increased to 149 average days, up from 145 average days in April. Members indicated certain capital equipment manufactures had increased their backlogs substantially, notably in the process industries such as petroleum refining, chemical, and paper production.

The average days lead time for Production Materials also lengthened to 48 days, up from 44 days last month, but on average, the same as February and March.

Lead times for Maintenance, Repair and Operating (MRO) Supplies lengthened considerably in May. The average days lead time increased to 28 days, up from 22 days in April, and the most since April 1989 (also 28 days).

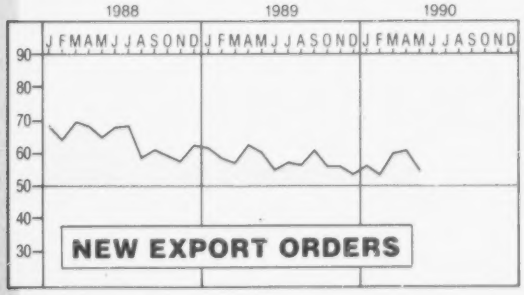


PERCENT REPORTING

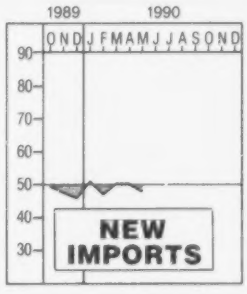
Capital Expenditures	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
May	10	7	10	22	35	16	149
April	12	6	13	18	36	15	145
March	11	5	14	18	37	15	147
February	10	8	16	15	36	15	145

Production Materials	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
May	17	40	27	13	2	1	48
April	16	43	28	11	2	0	44
March	19	37	29	10	4	1	49
February	17	40	28	12	2	1	48

MRO Supplies	Hand to Mouth	30 Days	60 Days	90 Days	6 Mos. and Longer	1 Year + Days	Avg. Days
May	41	45	10	3	0	1	28
April	47	43	8	2	0	0	22
March	39	49	9	2	1	0	26
February	42	47	8	1	2	0	26



New Export Orders increased for the 29th consecutive month in May. The New Export Orders Index, not yet seasonally adjusted, registered 54.0%, down from 60.5% in April and 59.5% in March. Members exporting increased to 76%, up from 74% in April.



Imports declined in May after two months of neither decline nor growth. It should be noted that the Imports Index previously reported for February, March, and April was in error and that the following figures reflect corrections. The number of members importing was unchanged from April, 76%.

New Export Orders	%Exporting	%Better	%Same	%Worse	Net	Index
May 1990	76	17	74	9	+ 8	54.0
April 1990	74	28	65	7	+21	60.5
March 1990	71	25	69	6	+19	59.5
February 1990	71	14	78	8	+ 6	53.0

Imports	%Importing	%Higher	%Same	%Lower	Net	Index
May 1990	76	8	79	13	−5	47.5
April 1990	76	10	80	10	0	50.0
March 1990	78	9	82	9	0	50.0
February 1990	77	9	75	16	−7	46.5

DATA AND METHOD OF PRESENTATION

The **Report on Business** is based on data compiled from monthly replies to questions asked of purchasing executives in over 300 industrial companies. Membership of the Business Survey Committee is diversified geographically, based on value added by state, and by Standard Industrial Classification (SIC) category, based on each industry's contribution to Gross National Product (GNP). Twenty industries in 50 states are represented on the committee.

Survey responses reflect the change, if any, in the current month compared to the previous month. For each of the indicators measured [New Orders, New Export Orders, Imports, Production, Supplier Deliveries (formerly Vendor Deliveries), Inventories, Employment and Prices], this report shows the percentage reporting each response, the net difference between the number of responses in the positive economic direction (higher, better and slower for Supplier Deliveries), and the negative economic direction (lower, worse and faster for Supplier Deliveries), and the diffusion index.

Responses are raw data and are never changed. The diffusion index includes the percent of positive responses plus one-half of those responding the same (considered positive). The resulting single index number is then seasonally adjusted to allow for the effects of repetitive intra-year variations resulting primarily from normal differences in weather conditions, various institutional arrangements and differences attributable to non-moveable holidays. All seasonal adjustment factors are supplied by the U.S. Department of Commerce and are subject annually to relatively minor changes when conditions warrant them. A sufficient history is not yet available for the New Export Orders and Imports Indexes to determine seasonal adjustment factors. Therefore, these two indexes are not seasonally adjusted. The Purchasing Managers' Index (PMI) is a composite index based on the seasonally adjusted diffusion indexes for five of the indicators (New Orders, Production, Supplier Deliveries, Inventories and Employment) with varying weights applied.

Diffusion indexes have the properties of leading indicators and are convenient summary measures showing the prevailing direction of change and the scope of change. An index reading above 50% indicates that the economy is generally expanding; below 50%, that the economy is generally declining. The distance from 50% is indicative of the strength of the expansion or decline.

Responses to Buying Policy reflect the percent reporting the current months lead time, the approximate weighted number of days ahead for which commitments are made for Production Materials, Capital Expenditures and Maintenance, Repair and Operating (MRO) Supplies, expressed as hand-to-mouth (5 days), 30 days, 60 days, 90 days, 6 months (180 days), a year or more (360 days) and the weighted average number of days. These responses are raw data, never revised and not seasonally adjusted since there is no significant seasonal pattern.